

AMENDMENTS

In the Specification:

On page 1, beginning at line 10, please insert the following paragraph,

--CROSS REFERENCE TO RELATED APPLICATIONS

This invention is a continuation of U.S. Application No. 09/146,201, filed September 2, 1998, which is incorporated herein by reference.--

In the Claims:

Please add the new claims as follows:

28. (New) In an asymmetrical digital subscriber line (ADSL) system connected to a telecommunications device, a method to operate a data service of the ADSL system pursuant to a selected mode of operation of the data service, the method comprising:

causing the ADSL system to detect a voice service in use with respect to the telecommunications device;

causing the ADSL system to provide an indication of voice service detection to a computer;

causing the computer to display a list of modes of operation;

receiving at the computer a selection of a mode from the list;

causing the computer to instruct the ADSL system to operate the data service pursuant to the selected mode; and

causing the ADSL system to operate the data service pursuant to the selected mode of operation.

29. (New) The method of Claim 28, wherein causing the computer to display a list of modes of operation comprises displaying service performance information on each of the modes of operation.

30. (New) The method of Claim 28, wherein causing the computer to display a list of modes of operation comprises causing the computer to provide impact information on performance of the data service in light of concurrent use of the voice service.

31. (New) The method of Claim 30, wherein causing the computer to display a list of modes of operation comprises causing the computer to provide the impact information including an effect of the data service on the voice service when the voice service is used concurrently with the data service.

32. (New) The method of Claim 28, wherein the list of modes of operation comprises a full power mode and a low power mode; and

wherein causing the computer to display a list of modes of operation comprises displaying the full power mode and the low power mode in the list of modes of operation.

33. (New) The method of Claim 28, wherein the modes of operation comprise a wait mode; and

wherein causing the computer to display a list of modes of operation comprises displaying the wait mode in the list of modes of operation.

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34. (New) In an asymmetrical digital subscriber line (ADSL) system connected to a telecommunications device, a method to operate a data service of the ADSL system pursuant to a preselected mode of operation of the data service, the method comprising:

causing the ADSL system to detect that a voice service is in use with respect to the telecommunications device;

causing the ADSL system to provide the detection to a computer;

causing the computer to check for a preselected mode of operation;

causing the computer to instruct the ADSL system to operate the service pursuant to the preselected mode of operation; and

causing the ADSL system to operate the data service pursuant to the preselected mode of operation.

35. (New) In an asymmetrical digital subscriber line (ADSL) system connected to a computer and a telecommunications device, a method to provide impact information on performance of a data service in light of concurrent use of a voice service of the ADSL system, the method comprising:

causing the ADSL system to detect an off-hook indication with respect to the telecommunications device;

causing the ADSL system to provide a detection indication to the computer; and

causing the computer to provide impact information on performance of the data service in light of concurrent use of the voice service.

36. (New) The method of Claim 35, wherein causing the computer to provide impact information on performance of the data service in light of concurrent use of the voice service comprises including the effect of the data service on the voice service when the voice service is used concurrently with the data service.

37. (New) The method of Claim 35, further comprising:

causing the computer to display a list of modes of operation;

receiving a selected mode from the list;

causing the computer to instruct the ADSL system to operate the data service pursuant to the selected mode; and

causing the ADSL system to operate the data service pursuant to the
selected mode of operation.

38. (New) In a telecommunications network with a telecommunications device, a method to provide impact information on performance of one ADSL service as between a data service or a voice service in light of concurrent use of the other service, the method comprising:

causing a telecommunications network to detect an off-hook indication with respect to the telecommunications device;

causing the telecommunications network to determine the data service is in use; and

causing the telecommunications network to provide an announcement including impact information on performance of the one service in light of the concurrent use of the other service.

39. (New) The method of Claim 38, wherein causing the telecommunications network to provide an announcement including impact information on performance of the one service in light of the concurrent use of the other service comprises providing an effect of the one service on the other service when the other service is used concurrently with the one service.

40. (New) The method of Claim 38, further comprising:
causing the telecommunications network to announce a list of modes of operation of the data service to the telecommunications device;
receiving at the telecommunications network a selected mode;

causing the telecommunications network to instruct the ADSL system to
operate the data service pursuant to the selected mode; and
causing the ADSL system to operate the data service pursuant to the
selected mode of operation.

41. (New) In a telecommunications network, and particularly in an asymmetrical digital subscriber line (ADSL) system connected to a telecommunications device and a computer, a system to provide a choice of a selected mode of operation between one service and another service, the system comprising:

the ADSL system being operative to detect a request for the other service and to provide the detection to the computer;

the computer being operative

to display a list of modes of operation,

to receive a selected mode from the list, and

to instruct the ADSL system to operate the other service pursuant to the selected mode; and

the ADSL system being further operative to operate the other service pursuant to the selected mode of operation.

42. (New) The system of Claim 41, wherein the computer is further operative to provide impact information on performance of the one service in light of concurrent use of the other service.

43. (New) The system of Claim 42, wherein the computer is also operative to provide impact information including an effect of the one service on the other service when the other service is used concurrently with the one service.

44. (New) In an asymmetrical digital subscriber line (ADSL) system connected to a telecommunications network, a computer, and a telecommunications device, a system to provide impact information on performance of one service as between a data service or a voice service in light of concurrent use of the other service, the system comprising:

a switch in the telecommunications network being operative

to detect an off-hook indication with respect to the telecommunications device,

to communicate with the ADSL system to determine that the data service is in use, and

to send a message to an intelligent peripheral in the telecommunications network regarding the off-hook indication; and

the intelligent peripheral being operative

to respond to the message from the switch by providing an announcement to the telecommunications device including impact information on performance of the one service in light of concurrent use of the other service.

45. (New) The system of claim 44, wherein the impact information comprises an effect of the one service on the other service when the other service is used concurrently with the one service.

46. (New) The system of claim 44, wherein the announcement comprises a list of modes of operation of the data service;

wherein the intelligent peripheral is further operative to receive a selected mode and to instruct the ADSL system to operate the data service pursuant to the selected mode.

47. (New) The system of claim 44, wherein the impact information comprises data on degradation of full power mode of the data service in light of the concurrent use of the voice service.

48. (New) The system of claim 44, wherein the impact information comprises data on degradation of low power mode of the data service in light of the concurrent use of the voice service.

49. (New) The system of claim 44, wherein the impact information comprises an effect of the full power mode of the data service on the voice service including detecting an amount of noise.

50. (New) The system of claim 49, wherein the amount of noise is precalculated in real time.

51. (New) The system of claim 49, wherein the amount of noise is measured in real time.

52. (New) The system of claim 44, wherein the message to the intelligent peripheral in the telecommunications network regarding the off-hook indication comprises determination that the data service is in use.

53. (New) The system of claim 44, wherein the message from the switch comprises whether the data service is in use.

54. (New) The system of claim 44, wherein the message from the switch comprises the effect of the one service on the other service when the other service is used concurrently with the one service.

55. (New) The system of claim 44, wherein the message from the switch comprises a list of modes of the data service.

56. (New) The system of claim 55, wherein the list of modes comprises at least one of the following: a full power mode, a low power mode, a rescind mode, or a wait mode.

57. (New) The system of claim 55, wherein the switch is further operative for:

receiving a selected mode;

transmitting the selected mode to the intelligent peripheral; and

instructing the ADSL system to operate the data service pursuant to the selected mode.

58. (New) The system of claim 57, wherein the ADSL system operates the data service pursuant to the selected mode.

59. (New) In a telecommunications network configured to support an asymmetrical digital subscriber line (ADSL) system, the ADSL system being available to provide voice service and data service through a telecommunications device, a method to intelligently manage the operation of either the voice service or the data service, the method comprising:

detecting an off-hook indication with respect to a telecommunications device;

communicating with the ADSL system to determine whether either service is in use;

sending a message regarding the off-hook indication to an intelligent peripheral in the telecommunications network;

receiving a response to the message from the intelligent peripheral; and

providing an announcement including impact information on performance of one service in light of the concurrent use of the other service to the telecommunications device.

60. (New) In a telecommunications network configured to support an asymmetrical digital subscriber line (ADSL) system, the ADSL system being available to provide a voice service and a data service through a telecommunications device, a method to maximize the use of either service, the method comprising:

- detecting a request for either the voice service or the data service;

- providing a list of modes of operation;

- detecting receipt of a selected mode from the list; and

- providing the other service pursuant to the selected mode.

REMARKS

The parent of this continuation application included Claims 1 - 27. Claims 6 - 27 were allowed to issue from the parent application. This continuation application includes Claims 1 - 5 from the parent application, and adds new Claims 28 - 60. This preliminary amendment also includes arguments that Claims 1 - 5 are allowable over the combination of art cited in the final Office Action in the parent application. Prior to presenting arguments for the allowability of Claims 1, 4, and 5, a brief summary of the claimed subject matter is presented.

Summary of the Subject Matter of Claims 1, 4, and 5

Assume a person is talking on the telephone with a colleague. They are working together on a report for their supervisor. At some point, the person would like to see the report on-line while talking to the colleague over the telephone.

The invention of Claim 1 allows the person, who is using a voice service in holding the telephone conference, to use a data service to view the report on a computer. In other words, a customer, who is using a first service, may add and use a second service at the same time as the first service. Thus, to finish the example, if the person talking on the telephone desires to see the report on-line, the person may use the invention of Claim 1 to add the data service and view the report on the computer while continuing to talk on the telephone.

Particularly, the invention of Claim 1 allows the person to add the second service by requesting it. The person is provided with a list of modes of operation of

the second service. A mode of operation is selected by the person, and the second service is added for the person's use in the selected mode.

The Combination of Bremer et al. and Dunn et al. Does Not Suggest the Claimed Subject Matter

Claims 1, 4, and 5 have been rejected for alleged obviousness based on *Bremer et al.*, United States Patent No. 6,061,392, in view of *Dunn et al.*, United States Patent No. 6,118,780. This rejection is respectfully traversed.

Claim 1

Claim 1 recites a preamble and action elements of a method. The preamble describes the conditions of operation of specific action elements included in the claim. Particularly, the preamble specifies the use of a system that provides voice service and data service. The preamble further specifies that one of the services (voice or data) be in use at the customer's premises. In other words, as a condition for the actions of the method, a voice service or a data service must be in use at the customer's premises. Once a condition for use of one of the services is met, then the action elements of Claim 1 may take place.

The action elements of Claim 1 are provided below:

- A. causing the ADSL system to detect a request for the other service;
- B. causing the ADSL system to provide a list of modes of operation;
- C. causing the ADSL system to detect receipt of a selected mode from the list; and

D. causing the ADSL system to provide the other service to the customer's premises pursuant to the selected mode.

Bremer et al. and *Dunn et al.* do not combine to result in a system or method that satisfies the conditions in the preamble and carries out the actions recited in Claim 1. As explained below, the rejection of Claims 1, 4, and 5 fails for at least the following reasons:

- *Dunn et al.* does not teach actions B – D of Claim 1.
- The Office Action ignores limitations in Claim 1.
- The combination of *Dunn et al.* and *Bremer et al.* does not yield the claimed subject matter.
- The reason provided in the Office Action for the combination of *Bremer et al.* and *Dunn et al.* fails to support the combination.

Bremer et al.

Bremer et al. describes a system that transmits data over the local loop. *Bremer et al.* senses when voice information is also transmitted across the local loop. In response, *Bremer et al.* shifts or narrows the transmission bandwidth of the data so the data transmissions do not interfere with the voice transmissions. Thus, in *Bremer et al.*, a data service is being provided when a voice service is detected, and actions are taken to accommodate the voice service.

The Office Action found *Bremer et al.* discloses a DSL system that can transmit data and/or voice signals to the customer premises. The Office Action also found that

while transmitting a data service, *Bremer et al.* carries out action A of Claim 1 which states:

- A. causing the ADSL system to detect a request for the other service

The Office Action stated *Bremer et al.* describes action A of Claim 1 by *Bremer et al.*'s detection of an off-hook condition of a telephone connected to the local loop. Further, the Office Action found action A in *Bremer et al.* in the transmission of data, and sensing of an off-hook condition of a telephone as an indication of a request for voice transmission.

The Office Action correctly stated *Bremer et al.* did not teach the other actions of Claim 1. However, the Office Action erroneously found the other actions of Claim 1 in *Dunn et al.* To further compound the error, the Office Action alleged the combination of *Bremer et al.* and *Dunn et al.* suggested the subject matter of Claims 1, 4, and 5. *Dunn et al.* does not teach actions B – D of Claim 1, and at least for that reason, *Dunn et al.* does not teach the subject matter of Claims 1, 4 and 5. Further, the combination of *Bremer et al.* and *Dunn et al.* does not suggest the subject matter of Claim 1 nor the subject matter of Claims 4 and 5.

Dunn et al. Does Not Teach Actions B – D of Claim 1

Actions B – D of Claim 1 are listed above, but they are summarized for convenience as follows:

- B. providing a list of modes of operation;
- C. detecting receipt of a selected mode from the list; and
- D. providing the other service pursuant to the selected mode.

The Office Action Erred By Ignoring Limitations in Claim 1

Claim 1 includes limitations that have been ignored in the Office Action's comparison of the claimed subject matter to *Dunn et al.* In Claim 1, one of two services is being provided to the customer's premises. The "other" service is requested by a user. In response to the request, a list of modes of operation of the "other" service are provided. A selected mode of operation of the "other" service is received, and the "other" service is provided pursuant to the selected mode.

The Office Action's comparison of Claim 1 and *Dunn et al.* generally ignores the limitations in Claim 1 regarding the first of two services "being provided" as a condition for the actions in the claim. In addition, the limitations in Claim 1 regarding the "other" service are ignored. Specific examples of the errors in ignoring Claim 1's limitations are provided below in connection with an action-by-action analysis of *Dunn et al.* vs. Claim 1.

Dunn et al. Does Not Provide a List of Modes of Operation

Dunn et al. allows a user to use a computer to activate and select voice and/or data transmission paths through either the voice and/or data networks. *Dunn et al.* refers to menus that are displayed to the user in connection with communication services, but *Dunn et al.*'s menus do not teach the provision of a list of modes of operation as included in Claim 1.

Dunn et al. displays menus to a user at two different times in its operation. Neither menu display teaches the claimed provision of a list of modes of operation of

“another” service (other than the one in operation) upon a request for the “other” service. An explanation of why each of *Dunn et al.*’s display of menus not teach the claimed provision is provided below.

Dunn et al.’s Menus for System Set-Up Do Not Teach A List of Modes of Operation of the “Other” Service

Dunn et al.’s first reference to menus is to the display of menus when a user logs into the server. *Dunn et al.*, col. 4, line 28. The user is able “to select the serving network from menus presented to the user by the client server interface. The menus ...define the authorized services and transmission paths as negotiated by the user with the local telephone company or service provider.... The menus can be changed by the user as his voice and data needs change.” *Dunn et al.*, col. 4, lines 40 – 45. Thus, *Dunn et al.*’s menus are used and manipulated by the user to set-up the user’s preferred system of communications.

Dunn et al.’s display of menus to a user, and the user’s manipulation of those menus to set-up a preferred system of communications, do not teach the claimed subject matter. In Claim 1, a service is being provided to the customer’s premises. “Another” service is requested, and a list of modes of operation for that “other” service are provided. Specifically, the list is provided in response to a request for a service “other” than the service already being provided. Further, the modes of operation in the list relate to the “other service” that has been requested. In contrast, in *Dunn et al.*, the user is not being provided with any service when menus are displayed during set-up. Thus, *Dunn et al.* does not teach Claim 1.

There is at least another reason *Dunn et al.*'s display of menus at set-up does not teach Claim 1. *Dunn et al.*'s menus are not displayed in response to the action that initiates the provision of a list of modes of operation in Claim 1. In *Dunn et al.*, the menus are displayed for the user at system set-up. In contrast, in Claim 1, the list of modes is provided in response to the request for the "other" service. Thus, *Dunn et al.*'s display of menus at system set-up does not teach the provision of a list of modes in response to a request for "another" service. Thus, *Dunn et al.* does not teach Claim 1.

Dunn et al.'s Menus for Call Routing Do Not Teach Claim 1

Dunn et al.'s second reference to menus is to menus displayed as part of step 324, Fig. 3C2, during the process of call origination from the user. *Dunn et al.*'s description states: "menus listing voice and/or data transmissions paths available to the user." *Dunn et al.*, col. 5, lines 26 – 27. The user's selections in connection with these menus alter the routing of voice and data paths. *Dunn et al.*, col. 5, lines 25 – 33.

Therefore, *Dunn et al.*'s display of menus, and the user's selection of paths from the menus to route a call do not teach the claimed subject matter. *Dunn et al.*'s display of menus are not provided in the conditions set out in the preamble or in the actions of Claim 1. In Claim 1, a service is being provided to the customer's premises. "Another" service is requested, and a list of modes of operation of that "other" service is provided. In *Dunn et al.*, at the point of display of menus for call routing, the user is in the process of originating a communication. *Dunn et al.*'s display of menus relates to the origination of the communication. *Dunn et al.*'s display of menus do not relate to "another" service. Thus, *Dunn et al.* does not teach Claim 1.

Furthermore, there is at least another reason *Dunn et al.*'s display of menus does not teach Claim 1. *Dunn et al.*'s menus are not displayed in response to the action that initiates the provision of a list of modes of operation in Claim 1. In *Dunn et al.*, the menus are displayed for the user at call routing. In contrast, in Claim 1, the list of modes is provided in response to the request for the "other" service. *Dunn et al.*'s call routing menus are not provided in response to a request for "another" service. Thus, *Dunn et al.*'s display of menus at call routing does not teach the provision of a list of modes in response to a request for "another" service. Thus, *Dunn et al.* does not teach Claim 1.

Dunn et al. Does Not Receive A Selected Mode From the List of Modes

Claim 1 includes an action C of detecting receipt of a selected mode from the list. As explained in the previous section, *Dunn et al.* does not teach a list of modes of operation. Thus, *Dunn et al.* does not teach the follow-up action in Claim 1 of receiving a selected mode from the list of modes.

Dunn et al. Does Not Provide the "Other" Service in the Selected Mode

Claim 1 includes an action D of providing the "other" service to the customer's premises pursuant to the selected mode. As repeatedly noted above, *Dunn et al.* does not teach a list of modes of operation. The previous section explained *Dunn et al.* does not teach the follow-up action of receiving a selected mode from the list of modes. If *Dunn et al.* does not teach a list of modes nor receipt of a selected mode, then *Dunn et al.* cannot teach the action of providing the "other" service in the selected mode.

Furthermore, there is at least another reason *Dunn et al.* does not teach the provision of an “other” service in a selected mode. *Dunn et al.* allows only for one type of service, and does not provide an “other” service in addition to the selected service. In particular, *Dunn et al.* allows a user to use menus for a preferred system of communications. According to *Dunn et al.*, the user may originate one of three types of transmissions: telephone only; PC only; or data & voice. *Dunn et al.*, Fig. 3C2 and accompanying text. If the user is being provided with one of these three types of transmissions, *Dunn et al.* describes no “other” service that can be provided. For example, if the user selects telephone only, then the user receives telephone service only. *Dunn et al.* does not describe or suggest adding the data service. Thus, *Dunn et al.* does not teach the provision of an “other” service.

To elaborate on the example of the previous paragraph, referring to Fig. 3C2 of *Dunn et al.*, a user may choose to originate a communication using a telephone only. If so, the system is set up for voice. There is no provision in *Dunn et al.* for the user continuing to use the telephone, and then adding a data or any other service. Similarly, a user may choose to originate a PC communication. If so, the system is set up for data. But there is no provision in *Dunn et al.* for the user continuing to use the PC, and then adding the telephone service. Finally, the user may choose to originate a communication using the telephone and the PC. If so, the system is set up for both. Both services are provided at the same time. There is no provision in *Dunn et al.* for the user continuing to use the dual voice/data type of transmission, and then adding an “other” service. *Dunn et al.* does not teach the subject matter of Claim 1.

Bremer et al. and Dunn et al. Cannot Be Combined to Yield the Claimed Subject Matter

Bremer et al. and *Dunn et al.* do not combine, and in particular, do not combine to yield the subject matter of Claim 1. *Bremer et al.* and *Dunn et al.* are two different systems that do not work together. In being such different systems, there is no motivation or reason why a person of skill in the art would combine the relevant teachings.

In a very broad sense, *Bremer et al.* and *Dunn et al.* relate to common subject matter because both patents involve the transmission of data and voice over the same line. But that common subject matter is not enough to serve as motivation for combination of the relevant teachings. In sum, as explained in detail below, *Bremer et al.* and *Dunn et al.* cannot be combined because they relate to different aspects of the common subject matter.

Bremer et al. in Contrast with Dunn et al.

To demonstrate that the relevant subject matter of *Bremer et al.* and *Dunn et al.* cannot be combined, a brief summary of each of the references is provided.

Summary of Bremer et al.

Bremer et al. relates to the problems associated with the transmission of voice and data on a shared line. The problem includes the interference that may be caused by such dual transmission. To minimize the interference, *Bremer et al.* changes the characteristics of data transmission in response to the presence or lack of voice

transmissions on a shared line. Specifically, when only data is transmitted, the data may be transmitted over the full bandwidth. If a voice transmission is detected, then the bandwidth of the data transmission may be shifted or narrowed.

Essentially, *Bremer et al.* reacts to the presence of one or of two services on the same line, and takes respective actions. The resultant action depends on whether there is one service or two services on the line. *Bremer et al.* does not have anything to do with how one service or two services came to be on the same line. Rather, *Bremer et al.* solves a problem caused by the transmission of both services on the same line.

Summary of Dunn et al.

Dunn et al. provides a user with greater control of communications. *Dunn et al.* allows a user through a personal computer to control the activation and the selection of voice and/or data transmission paths. The user is presented with menus to define the authorized services and transmission paths for communications. The user may initiate a voice communication, a data communication, or both. The user is presented with menus for such communication. In addition, the user may receive voice and/or data communications. Thus, *Dunn et al.* provides a user with management of communication services. *Dunn et al.* does not have anything to do with problems that may be caused by the transmission of voice and data on the same line. Rather, *Dunn et al.* solves a problem caused by the lack of user control over communications.

Specific Contrasts Between Bremer et al. and Dunn et al.

Bremer et al. and *Dunn et al.* both relate to the transmission of data and voice over the same line, but they are directed to opposite ends of the common subject matter. *Bremer et al.* is directed to the technical problems that may result from data and voice being transmitted on the same line. In contrast, *Dunn et al.* is directed to the use of a computer for data service, voice service or both. *Bremer et al.* is used after data and voice services have been provided over the same line. *Dunn et al.* relates to the provision of data or voice services. Thus, *Bremer et al.* and *Dunn et al.* cannot be combined because their respective particular subject matters tackle opposite ends of the common subject matter.

Further, *Bremer et al.* and *Dunn et al.* cannot be combined because they relate to different aspects of the common subject matter. *Bremer et al.* tackles the technical problems that may result from the use of the computer as described in *Dunn et al.* On the other hand, *Dunn et al.* provides use of a computer for voice and/or data service. In dealing with the technical problems resulting from the transmission of voice and data on the same line, *Bremer et al.* does not reference how the voice signals and/or the data signals came to be on the same line. *Dunn et al.* does not reference the problems that may be caused by the combination of voice and data on the same line. Thus, *Bremer et al.* and *Dunn et al.* cannot be combined because their respective particular subject matters relate to different aspects of the common subject matter.

Hypothetical Combination of *Bremer et al.* and *Dunn et al.* Does Not Result in the Claimed Invention

If the relevant subject matters of *Bremer et al.* and *Dunn et al.* were combined, the combination would not work. At least, the combination would not result in the claimed subject matter.

The Office Action allegedly found the first action of Claim 1 in *Bremer et al.* The first action is as follows:

- A. causing the ADSL system to detect a request for the other service.

Bremer et al. allows for the transmission of data signals. When *Bremer et al.* senses voice signals, then *Bremer et al.* adjusts the transmission of the data signals. According to the Office Action, *Bremer et al.*'s detection of an off-hook condition of a telephone allegedly compares to action A of Claim 1. So, from this first comparison, the hypothetical combination of *Bremer et al.* and *Dunn et al.* is that of a system providing data signals and voice signals over the same line.

The Office Action allegedly found the remaining actions of Claim 1 in *Dunn et al.* The remaining actions of Claim 1 are as follows:

- B. causing the ADSL system to provide a list of modes of operation;
C. causing the ADSL system to detect receipt of a selected mode from the list; and
D. causing the ADSL system to provide the other service to the customer's premises pursuant to the selected mode.

The Combination Does Not Teach or Suggest Action B of Claim 1

The Office Action allegedly found *Dunn et al.*'s display of menus provided during set-up of the system comparable to action B of Claim 1, i.e., the provision of a

list of modes of operation. *Dunn et al.* provides another display of menus, as noted above, when a user initiates a communication.

Assume, for purposes of argument only, that either of *Dunn et al.*'s display of menus is substituted for the claimed provision of a list of modes of operation. The substitution of *Dunn et al.*'s display of menus does not work with *Bremer et al.*'s detection of an off-hook condition, which was substituted for action A of Claim 1. *Dunn et al.*'s menus are displayed at system set-up or at communication origination. *Bremer et al.*'s detection does not occur at system set-up, so *Dunn et al.*'s menus displayed at system start-up do not work with *Bremer et al.*'s detection.

Arguably, *Bremer et al.*'s detection of the off-hook condition may be a detection of an origination of a communication. As noted, *Dunn et al.* displays menus at the origin of a communication. But *Dunn et al.*'s menus provide the user with information about the voice and/or data transmissions paths available to the user. *Dunn et al.*'s menus do not provide information on the list of modes of operation of the "other service", i.e., the voice service in this example. Even if *Dunn et al.*'s menus were displayed when *Bremer et al.* detected the off-hook condition of a telephone, *Dunn et al.*'s menus do not provide information including a list of modes of operation of the telephone service. Thus, *Bremer et al.* combined with *Dunn et al.* does not result in the claimed subject matter.

Moreover, the display of *Dunn et al.*'s menus would serve no purpose if displayed to the *Bremer et al.* system. *Bremer et al.* does not describe a user or other entity operating in its system. Thus, the display of *Dunn et al.*'s menus is wasted. There is no user or other entity in *Bremer et al.* to receive, view, or act on the menus.

The Combination Does Not Teach or Suggest Action C of Claim 1

It is uncertain what action in *Dunn et al.* was found comparable to the third action of Claim 1, i.e., action C of detecting receipt of a selected mode of operation. It is assumed the user's use of *Dunn et al.*'s menus at the origin of a communication is the action the Office Action found comparable to action C. But such a comparison is erroneous. As explained in the previous paragraph, *Dunn et al.*'s menus do not provide information on the modes of operation of a telephone service. So, *Dunn et al.* does not describe an action of detecting a selected mode. Thus, *Bremer et al.* combined with *Dunn et al.* does not result in the claimed subject matter.

The Combination Does Not Teach or Suggest Action D of Claim 1

It is also uncertain what action in *Dunn et al.* was found comparable to the fourth action of Claim 1, i.e., action D of providing the other service in the selected mode. It is assumed *Dunn et al.*'s provision of telephone service is the action the Office Action found comparable to action D. But such a comparison is erroneous. As explained in the previous paragraphs, *Dunn et al.*'s menus do not provide information on the modes of operation of a telephone service. *Dunn et al.* does not describe an action of detecting a selected mode. So, *Dunn et al.* cannot describe an action of providing a service pursuant to a selected mode. Thus, *Bremer et al.* combined with *Dunn et al.* does not result in the claimed subject matter.

The Reason Provided in the Office Action for the Combination of *Bremer et al.* and *Dunn et al.* Fails

The Office Action provides a reason for the combination of *Bremer et al.* and *Dunn et al.* as follows:

“[I]t would have been obvious ... to add the feature of *Dunn et al.*’s system to *Bremer*’s system to have a better performance of the system in enable user’s to modify their services without assistance of providing company operators.”

This reason fails and is an insufficient basis for the Office Action’s combination of *Bremer et al.* and *Dunn et al.* The reason fails because *Dunn et al.*’s system enables users to select voice and/or data paths for their communications without *Bremer et al.*’s subject matter. Thus, the combination is unnecessary to achieve the purpose given for the reason.

Further, the reason is insufficient to explain modification of *Bremer et al.*’s system by inclusion of the relevant features of *Dunn et al.* As noted, *Bremer et al.* solves the problem of interference caused by the dual transmission of voice and data on the same line. *Bremer et al.* does not address any issues relating to how the voice and/or data signals were placed on the line, or other issues relating to a user’s use of communication services such as described in *Dunn et al.* Thus, the reason given for the combination fails because the reason is a broad conclusory statement without support. The reason does not provide a clear and particular teaching, suggestion, or motivation to combine *Bremer et al.* and *Dunn et al.* The Office Action failed to show any objective teaching or knowledge generally available to one of ordinary skill in the

art that would lead the individual to combine the relevant teachings of the references.
Therefore, Claim 1 is allowable.

Claims 2 – 5 are Patentable Over the Cited Art

Claims 2 – 5 depend on Claim 1, which has been shown to be allowable. Therefore, at least as dependent claims, Claims 2 – 5 are allowable. Moreover, each of these dependent claims presents separately patentable subject matter as explained in the Amendment and Response filed in response to the Office Action mailed on May 8, 2001 in the parent application. Those arguments are incorporated herein by reference.

New Claims 28-60 Are Neither Disclosed nor Suggested by the Cited Art

New Claims 28-60 have been added by the present amendment. Each of these claims presents separately patentable subject matter as explained in the Amendment and Response filed in response to the Office Action mailed on May 8, 2001 in the parent application. The undersigned Attorney submits that these claims are in condition for allowance.

CONCLUSION

The Examiner is thanked for his consideration of these remarks. All of the claims presented in this continuation application are in condition for allowance. A Notice of Allowance is respectfully requested. The Examiner is invited to contact the undersigned by telephone at 404.815.6213 should the Examiner wish to discuss this application.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

AMENDMENTS IN THE CLAIMS

In accordance with 37 CFR 1.121(c), the following versions of the claims as rewritten by the foregoing amendment show all the changes made relative to the previous versions of the claims.

28. (New) In an asymmetrical digital subscriber line (ADSL) system connected to a telecommunications device, a method to operate a data service of the ADSL system pursuant to a selected mode of operation of the data service, the method comprising:

causing the ADSL system to detect a voice service in use with respect to the telecommunications device;

causing the ADSL system to provide an indication of voice service detection to a computer;

causing the computer to display a list of modes of operation;

receiving at the computer a selection of a mode from the list;

causing the computer to instruct the ADSL system to operate the data service pursuant to the selected mode; and

causing the ADSL system to operate the data service pursuant to the selected mode of operation.

29. (New) The method of Claim 28, wherein causing the computer to display a list of modes of operation comprises displaying service performance information on each of the modes of operation.

30. (New) The method of Claim 28, wherein causing the computer to display a list of modes of operation comprises causing the computer to provide impact information on performance of the data service in light of concurrent use of the voice service.

31. (New) The method of Claim 30, wherein causing the computer to display a list of modes of operation comprises causing the computer to provide the impact information including an effect of the data service on the voice service when the voice service is used concurrently with the data service.

32. (New) The method of Claim 28, wherein the list of modes of operation comprises a full power mode and a low power mode; and
wherein causing the computer to display a list of modes of operation comprises displaying the full power mode and the low power mode in the list of modes of operation.

33. (New) The method of Claim 28, wherein the modes of operation comprise a wait mode; and
wherein causing the computer to display a list of modes of operation comprises displaying the wait mode in the list of modes of operation.

34. (New) In an asymmetrical digital subscriber line (ADSL) system connected to a telecommunications device, a method to operate a data service of the ADSL system pursuant to a preselected mode of operation of the data service, the method comprising:

causing the ADSL system to detect that a voice service is in use with respect to the telecommunications device;

causing the ADSL system to provide the detection to a computer;

causing the computer to check for a preselected mode of operation;

causing the computer to instruct the ADSL system to operate the service pursuant to the preselected mode of operation; and

causing the ADSL system to operate the data service pursuant to the preselected mode of operation.

35. (New) In an asymmetrical digital subscriber line (ADSL) system connected to a computer and a telecommunications device, a method to provide impact information on performance of a data service in light of concurrent use of a voice service of the ADSL system, the method comprising:

causing the ADSL system to detect an off-hook indication with respect to the telecommunications device;

causing the ADSL system to provide a detection indication to the computer; and

causing the computer to provide impact information on performance of the data service in light of concurrent use of the voice service.

36. (New) The method of Claim 35, wherein causing the computer to provide impact information on performance of the data service in light of concurrent use of the voice service comprises including the effect of the data service on the voice service when the voice service is used concurrently with the data service.

37. (New) The method of Claim 35, further comprising:

causing the computer to display a list of modes of operation;

receiving a selected mode from the list;

causing the computer to instruct the ADSL system to operate the data service pursuant to the selected mode; and

causing the ADSL system to operate the data service pursuant to the
selected mode of operation.

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38. (New) In a telecommunications network with a telecommunications device, a method to provide impact information on performance of one ADSL service as between a data service or a voice service in light of concurrent use of the other service, the method comprising:

causing a telecommunications network to detect an off-hook indication with respect to the telecommunications device;

causing the telecommunications network to determine the data service is in use; and

causing the telecommunications network to provide an announcement including impact information on performance of the one service in light of the concurrent use of the other service.

39. (New) The method of Claim 38, wherein causing the telecommunications network to provide an announcement including impact information on performance of the one service in light of the concurrent use of the other service comprises providing an effect of the one service on the other service when the other service is used concurrently with the one service.

40. (New) The method of Claim 38, further comprising:
causing the telecommunications network to announce a list of modes of operation of the data service to the telecommunications device;
receiving at the telecommunications network a selected mode;

causing the telecommunications network to instruct the ADSL system to
operate the data service pursuant to the selected mode; and
causing the ADSL system to operate the data service pursuant to the
selected mode of operation.

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41. (New) In a telecommunications network, and particularly in an asymmetrical digital subscriber line (ADSL) system connected to a telecommunications device and a computer, a system to provide a choice of a selected mode of operation between one service and another service, the system comprising:

the ADSL system being operative to detect a request for the other service and to provide the detection to the computer;

the computer being operative

to display a list of modes of operation,

to receive a selected mode from the list, and

to instruct the ADSL system to operate the other service pursuant to the selected mode; and

the ADSL system being further operative to operate the other service pursuant to the selected mode of operation.

42. (New) The system of Claim 41, wherein the computer is further operative to provide impact information on performance of the one service in light of concurrent use of the other service.

43. (New) The system of Claim 42, wherein the computer is also operative to provide impact information including an effect of the one service on the other service when the other service is used concurrently with the one service.

44. (New) In an asymmetrical digital subscriber line (ADSL) system connected to a telecommunications network, a computer, and a telecommunications device, a system to provide impact information on performance of one service as between a data service or a voice service in light of concurrent use of the other service, the system comprising:

a switch in the telecommunications network being operative
to detect an off-hook indication with respect to the
telecommunications device,
to communicate with the ADSL system to determine that the data
service is in use, and
to send a message to an intelligent peripheral in the
telecommunications network regarding the off-hook indication; and
the intelligent peripheral being operative
to respond to the message from the switch by providing an
announcement to the telecommunications device including impact information on
performance of the one service in light of concurrent use of the other service.

45. (New) The system of claim 44, wherein the impact information comprises an effect of the one service on the other service when the other service is used concurrently with the one service.

46. (New) The system of claim 44, wherein the announcement comprises a list of modes of operation of the data service;

wherein the intelligent peripheral is further operative to receive a selected mode and to instruct the ADSL system to operate the data service pursuant to the selected mode.

47. (New) The system of claim 44, wherein the impact information comprises data on degradation of full power mode of the data service in light of the concurrent use of the voice service.

48. (New) The system of claim 44, wherein the impact information comprises data on degradation of low power mode of the data service in light of the concurrent use of the voice service.

49. (New) The system of claim 44, wherein the impact information comprises an effect of the full power mode of the data service on the voice service including detecting an amount of noise.

50. (New) The system of claim 49, wherein the amount of noise is precalculated in real time.

51. (New) The system of claim 49, wherein the amount of noise is measured in real time.

52. (New) The system of claim 44, wherein the message to the intelligent peripheral in the telecommunications network regarding the off-hook indication comprises determination that the data service is in use.

53. (New) The system of claim 44, wherein the message from the switch comprises whether the data service is in use.

54. (New) The system of claim 44, wherein the message from the switch comprises the effect of the one service on the other service when the other service is used concurrently with the one service.

55. (New) The system of claim 44, wherein the message from the switch comprises a list of modes of the data service.

56. (New) The system of claim 55, wherein the list of modes comprises at least one of the following: a full power mode, a low power mode, a rescind mode, or a wait mode.

57. (New) The system of claim 55, wherein the switch is further operative for:

receiving a selected mode;

transmitting the selected mode to the intelligent peripheral; and

58. (New) The system of claim 57, wherein the ADSL system operates the data service pursuant to the selected mode.

59. (New) In a telecommunications network configured to support an asymmetrical digital subscriber line (ADSL) system, the ADSL system being available to provide voice service and data service through a telecommunications device, a method to intelligently manage the operation of either the voice service or the data service, the method comprising:

detecting an off-hook indication with respect to a telecommunications device;

communicating with the ADSL system to determine whether either service is in use;

sending a message regarding the off-hook indication to an intelligent peripheral in the telecommunications network;

receiving a response to the message from the intelligent peripheral; and

providing an announcement including impact information on performance of one service in light of the concurrent use of the other service to the telecommunications device.

60. (New) In a telecommunications network configured to support an asymmetrical digital subscriber line (ADSL) system, the ADSL system being available to provide a voice service and a data service through a telecommunications device, a method to maximize the use of either service, the method comprising:

detecting a request for either the voice service or the data service;

providing a list of modes of operation;

detecting receipt of a selected mode from the list; and

providing the other service pursuant to the selected mode.

Respectfully submitted,

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